Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1   Claim 1 (Previously Presented): Apparatus for providing a
2   web-accessible virtual processing environment to a
3   network-connected office server for a remotely connected
4   user computer through which a user stationed at the
5   computer can execute any of a plurality of server-based
6   applications resident at the office server, comprising:
7   a platform, capable of being situated in network
8   communication between the user computer and the office
9   server, having:
10   a processor;
11   a memory connected to the processor and for
12 storing computer executable instructions therein;
13   first and second network interfaces, operable in
14 conjunction with the processor, for interfacing the
15 platform, through the first network interface, to a wide
16 area network (WAN) connection through which the remote user
17 computer obtains connectivity to the platform, and, through
18 the second network interface, to a local area network (LAN)
19 having a server computer electrically communicative
20 thereover, respectively, with the server computer forming
21 the office server; and
22   wherein, in response to the executable

23 instructions, the processor, for each one of the
24 server-based applications:
25   provides, through a corresponding client
26 application module implemented on the platform for each of
27 the server-based applications, bi-directional protocol
28 conversion of messages between the remote user computer and
29 the office server, such that user interaction data,
30 intended for a specific one of the server-based
31 applications and provided by a browser executing on the
32 remote user computer in a first protocol, is converted into
33 a second protocol associated with said one server-based
34 application and then applied to the server-based
35 application at the office server, and output data, provided
36 by said specific one server-based application, is converted
37 from the second protocol to the first protocol for being
38 transmitted to the user computer and graphically rendered
39 thereat, through the browser, to the user.

1   Claim 2 (Original): The apparatus in claim 1 wherein the
2   processor, in response to execution of the stored
3   instructions:
4   for messages emanating from the user computer and
5   appearing on the WAN connection:
6   receives, from the browser, a first message
7   containing the user interaction data associated with a
8   specific one server-based application and in the first
9   protocol;

10   converts the user interaction data in the first

11   protocol to the second protocol associated with the

12   specific one server-based application to yield a second

13   message; and

14   applies the second message, as input, to the

15   server computer for processing by the specific one

16   server-based application; and

17   for messages emanating from the server computer and

18   appearing on the LAN:

19   receives, from the server computer and over the

20   LAN connection, a third message containing output data

21   generated by the specific one server-based application and

22   in the second protocol;

23   converts the output data message in the second

24   protocol to the first protocol to yield a fourth message;

25   and

26   applies the fourth message to the WAN connection

27   for transmission to the browser in order to render the

28   output data thereat.

1   Claim 3 (Original): The apparatus in claim 2 wherein the

2   server computer comprises a corresponding server for each

3   of the server-based applications and is implemented either

4   coincident with the platform or as at least one physical

5   computer separate from the platform and connected, via the

6   LAN, to it.

1   Claim 4 (Original): The apparatus in claim 3 further

2   comprising, in the platform, a separate corresponding

3   software-implemented application module for each of the

4   specific server-based applications for providing protocol

5   translation of the user interaction data and output data

6   between the first and second protocols; the application

7   module comprises:

8   a user interaction component communicative, through

9   the WAN connection, with the browser, for accepting the

10   user interaction data from the browser in the first

11   protocol and for providing said output data to the browser

12   in the first protocol;

13   a state machine, communicative through an application

14   processing interface with the user interaction component,

15   for interpreting each command issued by the user

16   interaction component so as to provide the user interaction

17   data to the specific one server-based application executing

18   on the server computer, and communicative through a client

19   protocol component, for sending user interaction data to

20   the server-based application and for receiving said output

21   information from the specific one server-based application;

22   and

23   a client protocol component, operative in conjunction

24   with the state machine, for converting the user interaction

25   data received from the state machine into the second

26   protocol and applying resultant messages in the second

27   protocol to the specific one server-based application, and

28   for receiving said output data in the second protocol from

29   the specific one server-based application and applying said

30   output data to the state machine.

1   Claim 5 (Original): The apparatus in claim 4 wherein the

2   server-based applications comprise thin-client application

3   hosting, e-mail and shared file access; and the first

4   protocol comprises HTTP, secure HTTP, or a protocol with

5   AIP-like functionality and the second protocol comprises

6   RDP (remote desktop protocol), IMAP (Internet mail access

7   protocol) or SMB (server message block).

1   Claim 6 (Original): The apparatus in claim 5 wherein the

2   user interaction data comprises a designation of a uniform

3   resource locator (URL), uniform resource identifier (URI),

4   form input, keystrokes or mouse clicks that returns

5   associated information desired by the user, and output data

6   comprises graphical display data.

1   Claim 7 (Original): The apparatus in claim 6 wherein said

2   output data comprises bitmap graphic output display data

3   generated by the specific one server-based application.

1   Claim 8 (Original): The apparatus in claim 7 wherein the

2   WAN connection comprises either a private network

3   connection or an Internet connection.

1   Claim 9 (Original): The apparatus in claim 8 wherein the

2   second network interface comprises an Ethernet interface,

3   and the first network interface comprises a broadband

4   network interface.

1   Claim 10 (Original): The apparatus in claim 9 wherein the

2   broadband network interface comprises a digital subscriber

3   line (DSL) interface, a cable modem, an integrated services

4   digital network (ISDN) interface, a T1 interface or a

5   fractional T1 interface.

1   Claim 11 (Previously Presented): A method for use, in

2   apparatus, which provides for providing a web-accessible

3   virtual processing environment to a network-connected

4   office server for a remotely connected user computer

5   through which a user stationed at the computer can execute

6   any of a plurality of server-based applications resident at

7   the office server, the apparatus comprising a platform,

8   capable of being situated in network communication between

9   the user computer and the office server, having: a

10   processor, a memory connected to the processor and for

11   storing computer executable instructions therein; first and

12   second network interfaces, operable in conjunction with the

13   processor, for interfacing the platform, through the first

14   network interface, to a wide area network (WAN) connection

15   through which the remote user computer obtains connectivity

16   to the platform, and, through the second network interface,

17   to a local area network (LAN) having a server computer

18   electrically communicative thereover, respectively, with

19   the server computer forming the office server; wherein, the

20   method comprises the steps, performed by the processor, for

21   each one of the server-based applications:

22   providing, through a corresponding client application

23   module implemented on the platform for each of the

24   server-based applications, bi-directional protocol

25 conversion of messages between the remote user computer and
26 the office server, wherein the providing step comprises the
27 steps of:
28   converting user interaction data, intended for a
29 specific one of the server-based applications and provided
30 by a browser executing on the remote user computer from a
31 first protocol into a second protocol associated with said
32 one server-based application so as to yield converted user
33 interaction data;
34   applying the converted user interaction data to
35 the server-based application at the office server;
36   converting output data, provided by said specific
37 one server-based application, from the second protocol to
38 the first protocol so as to yield converted output data;
39 and
40   transmitting the converted output data to the
41 user computer to be graphically rendered thereat, through
42 the browser, to the user.

1 Claim 12 (Original): The method in claim 11 further
2 comprising the steps of:
3   for messages emanating from the user computer and
4 appearing on the WAN connection:
5   receiving, from the browser, a first message
6 containing the user interaction data associated with a
7 specific one server-based application and in the first
8 protocol;

9   converting the user interaction data in the first

10   protocol to the second protocol associated with the

11   specific one server-based application to yield a second

12   message; and

13   applying the second message, as input, to the

14   server computer for processing by the specific one

15   server-based application; and

16   for messages emanating from the server computer and

17   appearing on the LAN:

18   receiving, from the server computer and over the

19   LAN connection, a third message containing output data

20   generated by the specific one server-based application and

21   in the second protocol;

22   converting the output data message in the second

23   protocol to the first protocol to yield a fourth message;

24   and

25   applying the fourth message to the WAN connection

26   for transmission to the browser in order to render the

27   output data thereat.

1   Claim 13 (Original): The method in claim 12 further

2   comprising the SEP of implementing a corresponding server

3   for each of the server-based applications either coincident

4   with the platform or as at least one physical computer

5   separate from the platform and connected, via the LAN, to

6   it.

1   Claim 14 (Original): The method in claim 13 further

2   comprising the step of providing protocol translation of

3   the user interaction data and output data between the first

4   and second protocols through a separate

5   software-implemented application module for each of the

6   specific server-based applications; wherein the application

7   module comprises:

8   a user interaction component communicative, through

9   the WAN connection, with the browser, for accepting the

10   user interaction data from the browser in the first

11   protocol and for providing said output data to the browser

12   in the first protocol;

13   a state machine, communicative through an application

14   processing interface with the user interaction component,

15   for interpreting each command issued by the user

16   interaction component so as to provide the user interaction

17   data to the specific one server-based application executing

18   on the server computer, and communicative through a client

19   protocol component, for sending user interaction data to

20   the server-based application and for receiving said output

21   information from the specific one server-based application;

22   and

23   a client protocol component, operative in conjunction

24   with the state machine, for converting the user interaction

25   data received from the state machine into the second

26   protocol and applying resultant messages in the second

27   protocol to the specific one server-based application, and

28   for receiving said output data in the second protocol from

29   the specific one server-based application and applying said

30   output data to the state machine.

1   Claim 15 (Original): The method in claim 14 wherein the
2   server-based applications comprise thin-client application
3   hosting, e-mail and shared file access; and the first
4   protocol comprises HTTP, secure HTTP, or a protocol with
5   AIP-like functionality and the second protocol comprises
6   RDP (remote desktop protocol), IMAP (Internet mail access
7   protocol) or SMB (server message block).

1   Claim 16 (Original): The method in claim 15 wherein the
2   user interaction data comprises a designation of a uniform
3   resource locator (URL), uniform resource identifier (URI),
4   form input data, user keystrokes or user mouse clicks that
5   returns associated information desired by the user, and the
6   output data comprises graphical display data.

1   Claim 17 (Original): The method in claim 16 wherein said
2   output data comprises bitmap graphic output display data
3   generated by the specific one server-based application.

1   Claim 18 (Original): The method in claim 17 wherein the WAN
2   connection comprises either a private network connection or
3   an Internet connection.

1   Claim 19 (Original): The method in claim 18 wherein the
2   second network interface comprises an Ethernet interface,
3   and the first network interface comprises a broadband
4   network interface.

1   Claim 20 (Original): The method in claim 19 wherein the

2   broadband network interface comprises a digital subscriber

3   line (DSL) interface, a cable modem, an integrated services

4   digital network (ISDN) interface, a T1 interface or a

5   fractional T1 interface.